

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 13.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-014539**Date Inspected:** 03-Jun-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1000**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1830**Contractor:** Oregon Iron Works Clackamas, Or.**Location:** Clackamas, OR

CWI Name:	M. Gregson, J. Salazar, G. Mundt			CWI Present:	Yes	No	
Inspected CWI report:	Yes	No	N/A	Rod Oven in Use:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A	Weld Procedures Followed:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A	Verified Joint Fit-up:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A	Approved WPS:	Yes	No	N/A
				Delayed / Cancelled:	Yes	No	N/A
Bridge No:	34-0006			Component:	Hinge K Pipe Beams		

Summary of Items Observed:

The Quality Assurance Inspector Sean Vance arrived on site at Oregon Iron Works, Inc (OIW) in Clackamas, OR, to randomly observe the in process welding of the Hinge K Pipe Beam assemblies. The QA Inspector arrived on site to randomly observe the OIW Quality Control (QC) Inspectors in process and completed visual and nondestructive testing. Upon the arrival of the QA Inspector the following observations were made:

Hinge-K Pipe Beam Assembly 101A-3:

The QA Inspector observed OIW WID #B62 (Marcus Belgarde) and Production Lead Troy Smith attaching two yellow rigging slings to the Fuse 120A-3. The QA Inspector observed that the Fuse was sitting on a shipping saddle and wooden dunnage, on the Production Bay 3 shop floor. The QA Inspector observed that the slings were being placed around the Fuse and the overhead Bay 3 crane had been previously placed to lift the Fuse. The QA Inspector then observed OIW lower the crane and attach the slings to the lifting hook. Once the hook was attached, the QA Inspector observed OIW utilize the hand held controls, which operate the crane, to lift the Fuse from the shop floor. Once lifted from the shop floor, the QA Inspector observed that the Fuse was then moved in the east direction and lowered on a set of previously placed mechanical rollers. The QA Inspector then observed OIW remove the crane hook and slings from the Fuse and start fitting the Fuse to the previously placed assembly 102A-3.

Lead Smith explained that fitting will continue throughout the shift and once the fit-up is complete, tack welds will be placed. Lead Smith explained that once the joint is tack welded, an OIW machinist will then perform FARO measurements on the perpendicularity of the Fuse to Forging assembly and QC will then be notified to visually check the fit-up. See attached picture below.

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Hinge-K Pipe Beam Assembly 101A-4:

On this date, the QA Inspector was informed by OIW QC Inspector Jose' Salazar that OIW production had performed a final length measurement on the HPB 101A-4. QC Inspector Salazar explained that he was present to witness and QC Inspector Salazar explained that the final measurement was recorded at 5102 mm. QC Inspector Salazar explained that this measurement was taken from the machined end face of the a110-4 Base plate to the machined end of the Fuse 120A-4, utilizing a tape measure. The QA Inspector noted that per the contract, the overall length required is 5100 mm, with a tolerance of +/- 10 mm. The QA Inspector noted that the final dimension appeared to be in compliance with the contract requirements.

The QA Inspector later observed that OIW production personnel had loaded the HPB 101A-4 on a trailer. The QA Inspector observed that OIW production Lead Troy Smith was present on this shift and Lead Smith explained that OIW will be transferring this HPB to Vancouver, for painting. The QA Inspector observed that the HPB was placed on a shipping saddle and secured to the trailer with come-a-longs.

AG Machining (Boring, OR)

On this date, the QA Inspector arrived at AG Machine Works to observe the final machining of the Fuse 120A-8. Upon arrival, the QA Inspector met with AG Machinist Terry Schmale. Mr. Schmale explained that the second cut pass for final machining was in-process and approximately 50 % complete and AG will continue to machine throughout the day.

The QA Inspector observed that the Fuse was rotating in a horizontal lathe and a stationary steel cutting bit was removing the overlay material, as the Fuse rotated.

Mr. Schmale explained that AG will be closed on the following day, 6/4/10 and will resume machining on 6/7/10. See attached pictures below.

Material, Equipment, and Labor Tracking (MELT)

QA Inspector Sean Vance performed a verification of material, personnel and equipment involved with the project. The QA Inspector observed at Oregon Iron Works Clackamas: 4 OIW production personnel and 2 QC Inspectors. The QA Inspector observed at AG Machine Works: 1 Machinist and 1 Supervisor.



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Summary of Conversations:

As noted above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Mohammad Fatemi (916) 813-3677, who represents the Office of Structural Materials for your project.

Inspected By:	Vance,Sean	Quality Assurance Inspector
Reviewed By:	Adame,Joe	QA Reviewer
